

Notice of Allowability

Application No.

09/829,305

Applicant(s)

RIGALI ET AL.

Examiner

Karla Moore

Art Unit

1763

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed 4/7/04.
2. ☒ The allowed claim(s) is/are 28-45, 49 and 50.
3. ☒ The drawings filed on 09 April 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

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DETAILED ACTION

1. Examiner recognizes that the foreign priority documents were incorrectly acknowledged in the previous action. This has been corrected in the current action. See the Notice of Allowability.

Allowable Subject Matter

2. Claims 28-45 and 49-50 are allowed.

3. The following is an examiner's statement of reasons for allowance: The prior art of record fails to teach or fairly suggest a system ***for the plasma treatment of a plurality of parts at one time***, comprising: a reaction chamber having an open bottom; a chamber base sealingly engageable with said bottom of said reaction chamber to form a treatment chamber; a lifting device coupled with said reaction chamber and operable to lift said reaction chamber from said chamber base; a lifting device coupled with said reaction chamber and operable to lift said reaction chamber from said chamber base; ***a guide along which each of the plurality of parts may be moved from a position outside said treatment chamber to a plurality of treatment positions within said treatment chamber***, a transfer mechanism operable to transfer the plurality of parts along said guide from said position outside of said treatment chamber to said plurality of treatment positions within said treatment chamber when said reaction chamber is disengaged from said chamber base; a plasma-generating device operable to produce a plasma within said treatment chamber for treating the plurality of parts when positioned in said plurality of treatment positions; and an electronic control system that controls said transfer mechanism for transferring the plurality of parts to said plurality of treatment positions.

4. The closest pieces of art are Bhat, Uehara et al., and Beach et al. Bhat teaches the majority of the claimed invention, but fails to teach ***a guide along which each of the plurality of parts may be moved from a position outside said treatment chamber to a plurality of treatment positions within said treatment chamber***. Similarly, Uehara et al. and Beach et al. teach the majority of the claimed invention; however, each of these references fails to fairly teach or suggest ***treatment of more than one substrate at a time***. In fact, they teach against treatment of a plurality of substrates. No other piece of

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prior art was located that taught each of these recitations or that provided valid motivation for the combination of these features with those of the aforementioned references. Examiner notes that the arguments against the combination of Bhat and Ciardella et al. were not convincing, but the amendments to the claims make this issue mute, as Bhat no longer reads on the claimed invention.

5. The following is an examiner's statement of reasons for allowance for claims 37-45: The prior art fails to teach or fairly suggest: A system for the plasma treatment of a plurality of parts at one time, comprising: a reaction chamber having an open bottom; a chamber base sealingly engageable with said bottom of said reaction chamber to form a treatment chamber; a lifting device coupled with said reaction chamber and operable to lift said reaction chamber from said chamber base; a plasma-generating device operable to produce plasma within said treatment chamber for treating the plurality of parts, said plasma-generating device including a plurality of vertically spaced horizontal electrodes; a plurality of vertically spaced guides forming multiple levels along which the plurality of parts may be moved to a plurality of treatment positions within the treatment chamber, each of said plurality of guides associated with a respective one of said plurality of horizontal electrodes; and a transfer mechanism operable to transfer the plurality of parts along said plurality of guides to said plurality of treatment stations.

6. For claims 49-50, the prior art fails to teach or fairly suggest: A system for the plasma treatment of a part, comprising: a reaction chamber having an open bottom; a chamber base sealingly engageable with said bottom of said reaction chamber to form a treatment chamber; a lifting device coupled with said reaction chamber and operable to lift said reaction chamber from said chamber base; a guide along which the part may be moved; an input carrier adapted to hold the part adjacent to said guide prior to transfer into the treatment chamber; an output carrier adapted to receive the part from said guide following plasma treatment; a transfer mechanism operable to transfer the part along said guide when said reaction chamber is disengaged from said chamber base; and a plasma-generating device operable to produce plasma within said treatment chamber for the part.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karla Moore whose telephone number is 571.272.1440. The examiner can normally be reached on Monday-Friday, 8:30am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Mills can be reached on 571.272.1439. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

km
15 June 2004

P. Hassanzadeh
Parviz Hassanzadeh
Primary Examiner
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